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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

JPW

# TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

17

Application Number

10/530,640

Filing Date

April 6, 2005

First Named Inventor

Chrystelle Lagahe

Art Unit

2812

Examiner Name

Unassigned

Attorney Docket Number

034299-629

## ENCLOSURES (check all that apply)

☐ Fee Transmittal Form

☐ Fee Attached

☐ Amendment / Reply

☐ After Final

☐ Affidavits/declaration(s)

☐ Extension of Time Request

☐ Express Abandonment Request

☐ Information Disclosure Statement

☐ Certified Copy of Priority Document(s)

☐ Reply to Missing Parts/  
Incomplete Application

☐ Reply to Missing Parts  
under 37 CFR 1.52 or 1.53

☐ Drawing(s)

☐ Licensing-related Papers

☐ Petition

☐ Petition to Convert to a  
Provisional Application

☐ Power of Attorney, Revocation  
Change of Correspondence Address

☐ Terminal Disclaimer

☐ Request for Refund

☐ CD, Number of CD(s) \_\_\_\_\_

☐ Landscape Table on CD

☐ After Allowance Communication to TC

☐ Appeal Communication to Board  
of Appeals and Interferences

☐ Appeal Communication to TC  
(Appeal Notice, Brief, Reply Brief)

☐ Proprietary Information

☐ Status Letter

☒ Other Enclosure(s)  
(please identify below):

Replacement of Filing Receipt (14 pgs  
w/attachments); Return Postcard

Remarks

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm

THELEN REID & PRIEST LLP

Signature

S. Bhat

Printed Name

Suvashis Bhattacharya

Date

3/16/06

Reg.  
No.

46,554

## CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Signature

Kathleen K. Muto

Typed or printed name

Kathleen K. Muto

Date

3-17-06

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Chrystelle Lagahe et al.  
SERIAL NO.: 10/530,640 CONFIRMATION NO.: 7540  
FILING DATE: April 26, 2005  
TITLE: FORMATION OF A SEMICONDUCTOR SUBSTRATE THAT MAY  
BE DISMANTLED AND OBTAINING A SEMICONDUCTOR  
ELEMENT  
EXAMINER: Unassigned  
ART UNIT: 2812

Certificate of Mailing

I hereby certify that this paper is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: MAIL STOP: Missing Parts, P.O. Box 1450 Alexandria, VA 22313-1450, on the date printed below:

Date: 3-17-06 Signature: Kathleen K. Muto  
Kathleen K. Muto

MAIL STOP: Missing Parts  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

REPLACEMENT OF FILING RECEIPT

We received the attached filing receipt for the above-referenced case, which states the following:

- 1) the title as "Method for making a detachable semiconductor substrate and for obtaining a semiconductor element";
- 2) under Power of Attorney, "Robert Krebs - 25,885"; and
- 3) under Foreign Applications, "FRANCE 03501130."

Therefore, please amend the appropriate records to reflect the following corrections:

- 4) the title as Formation Of A Semiconductor Substrate That May Be Dismantled And Obtaining A Semiconductor Element, pursuant to the attached courtesy copy of the first page of the Specification as filed on April 6, 2005;
- 5) the correct listing of attorneys for this matter; a power of attorney (courtesy copy attached) was originally submitted on April 6, 2005. We submit herewith a document entitled

"Patent Practitioners to be Made of Record Pursuant to 37 C.F.R. §1.32(c)(3)" to limit those identified to ten or fewer practitioners.

6) the correct priority data: "FRANCE 0350130." Please see the attached courtesy copy of the Preliminary Amendment filed April 6, 2005.

Additionally, Applicants request an updated filing receipt reflecting the amendments requested.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. 50-1698.

Respectfully submitted,

THELEN REID & PRIEST LLP



Suvashis Bhattacharya  
Reg. No. 46,554

Dated: 3/16/06

THELEN REID & PRIEST LLP  
P.O. Box 640640  
San Jose, CA 95164-0640  
Telephone: (408) 292-5800  
Fax: (408) 287-8040



UNITED STATES PATENT AND TRADEMARK OFFICE



UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
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APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/530,640	04/06/2005	2812	900	034299-629	3	16	1

RECEIVED

CONFIRMATION NO. 7540

FILING RECEIPT

\*OC000000016833275\*

\*OC000000016833275\*

Robert E Krebs  
 Thelen Reid & Priest  
 P O Box 640640  
 San Jose, CA 95164-0640

SEP 06 2005

THELEN REID &amp; PRIEST LLP

Date Mailed: 08/25/2005

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

## Applicant(s)

Chrystelle Lagahe, Saint-Joseph de Riviere, FRANCE;  
 Bernard Aspar, Rives, FRANCE;  
 Aurelie Beaumont, Grenoble, FRANCE;

## Power of Attorney:

Robert Krebs=25885

## Domestic Priority data as claimed by applicant

This application is a 371 of PCT/FR03/50077 10/03/2003

## Foreign Applications

FRANCE 0212443 10/07/2002  
 FRANCE 0350130 04/25/2003

0350130

Projected Publication Date: 12/01/2005

Non-Publication Request: No

Early Publication Request: No

Title

Reviewed By: Y Date: 11/28/05  
 No Action Required:  
 Action Required: PLA

Mall log \_\_\_\_\_ Date \_\_\_\_\_  
 CPI \_\_\_\_\_ Date \_\_\_\_\_  
 Excel \_\_\_\_\_ Date \_\_\_\_\_  
 DOCKED  
 SEP 8 2005

~~Method for making a detachable semiconductor substrate and for obtaining a semiconductor element~~

Formation of a Semiconductor Substrate That May Be Dismantled and Obtaining a Semiconductor Element

Preliminary Class

438

## PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

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#### **GRANTED**

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COPY

FORMATION OF A SEMICONDUCTOR SUBSTRATE THAT MAY BE  
DISMANTLED AND OBTAINING A SEMICONDUCTOR ELEMENT

DESCRIPTION

5 TECHNICAL FIELD

The present invention concerns a method for forming a semiconductor substrate that can be dismantled. It further concerns a method for obtaining  
10 an element in semiconductor material.

STATE OF THE PRIOR ART

Document FR-A-2 681 472 (corresponding to US patent n° 5 374 564) describes a method for producing thin films of semiconductor material. It  
15 teaches that the introduction of a rare gas or hydrogen into a substrate is capable of inducing, under certain conditions, the formation of micro-cavities or micro-bubbles at a depth close to the average penetration depth of the implanted ions. By bringing into intimate  
20 contact this substrate, through its implanted face, with a stiffener and carrying out a suitable thermal treatment, an interaction between the micro-cavities or micro-bubbles present in the implanted zone may take place. This interaction may then lead to a fracture at  
25 the level of the implanted zone of the semiconductor substrate. Two parts are then obtained: on the one hand a semiconductor film adhering to the stiffener and, on the other hand, the remainder of the initially implanted substrate. The remainder of the substrate may  
30 be recycled and reused. This method makes it possible,



COPY

# Declaration, Power Of Attorney and Petition

Page 1 of 3

WE (I) the undersigned inventor(s), hereby declare(s) that :

My residence, post office address and citizenship are as stated below next to my name,

We (I) believe that we are (I am) the original, first, and joint (sole) inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention entitled

## FORMATION OF A SEMICONDUCTOR SUBSTRATE THAT MAY BE DISMANTLED AND OBTAINING A SEMICONDUCTOR ELEMENT

the specification of which

- ☐ is attached hereto.
- ☐ was filed on  
as Application Serial No.  
and amended on
- ☒ was filed as PCT international application  
Number PCT/FR03/50077  
on October 3, 2003  
and was amended under PCT Article 19  
on

We (I) hereby state that we (I) have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

We (I) acknowledge the duty to disclose information known to be material to the patentability of this application as defined in Section 1.56 of Title 37 Code of Federal Regulations.

We (I) hereby claim foreign priority benefits under 35 U.S.C. § 119 (a)-(d) or § 365 (b) of any foreign application(s) for patent or inventor's certificate, or § 365 (a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is claimed. Prior Foreign Application (s)

Application No.	Country	Day/month/Year	Priority Claimed	
02 12443	FRANCE	07 october 2002	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
03 50130	FRANCE	25 April 2003	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
			<input type="checkbox"/> YES	<input type="checkbox"/> NO
			<input type="checkbox"/> YES	<input type="checkbox"/> NO



We (I) hereby claim the benefit under Title 35, United States Code, § 119 (e) of any United States provisional application(s) listed below.

\_\_\_\_\_  
(Application Number)

\_\_\_\_\_  
(Filing Date)

\_\_\_\_\_  
(Application Number)

\_\_\_\_\_  
(Filing Date)

We (I) hereby claim the benefit under 35 U.S.C. §120 of any United States application(s), or § 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56 which became available between the filing date of prior application and the national or PCT International filing date of this application.

Application Serial No.

Filing Date

Status (pending, patented,  
abandoned)

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

And we (I) hereby appoint : Robert E. Krebs, Registration No. 25,885; David B. Ritchie, Registration No. 31,562; Marc S. Hanish, Registration No. 42,626; John P. Schaub, Registration No. 42,125; Gerhard W. Thielman, Registration No. 43,186; Adrienne Yeung, Registration No. 44,000; Steven J. Robbins, Registration No. 40,299; Thierry K. Lo, Registration No. 49,097; William Samuel Niece, Registration No.: P47,824; and John Klaas Uilkema, Registration No. 20,282 ; our (my) attorneys of record with full power of substitution and revocation, to prosecute this application and transact all business in the United States Patent and Trademark Office connected therewith; and we (I) hereby request that all correspondence regarding this application be sent to the firm of THELEN REID & PRIEST LLP whose Post Office Address is : P.O. Box 640640, San Jose, CA 95164-0640.

We (I) declare that all statements made herein of our (my) own knowledge are true and that all statements made on information and belief are believed to be true ; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such wilful false statements may jeopardise the validity of the application or any patent issuing thereon.

LAGAHE Chrystelle

NAME OF FIRST SOLE INVENTOR



Signature of Inventor

March 9, 2005

Date

Residence : Route de la cascade  
38134 ST-JOSEPH DE RIVIERE  
FRANCE

Citizen of : FRANCE

Post Office Address : The same as residence

ASPAR Bernard

NAME OF SECOND INVENTOR

Signature of Inventor

March 9, 2005

Date

Residence : 110 Lot P Hameau desAyeo  
38140 RIVES FRANCECitizen of : FRANCE

Post Office Address : The same as residence

BEAUMONT Aurélie

NAME OF THIRD INVENTOR

Signature of Inventor

March 9, 2005

Date

Residence : 32 rue Ampère38000 GRENOBLE  
FRANCECitizen of : FRANCE

Post Office Address : The same as residence

NAME OF FOURTH INVENTOR

Signature of Inventor

Date

Residence : \_\_\_\_\_

Citizen of : \_\_\_\_\_

Post Office Address : The same as residence

NAME OF FIFTH INVENTOR

Signature of Inventor

Date

Residence : \_\_\_\_\_

Citizen of : \_\_\_\_\_

Post Office Address : The same as residence



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

COPY

APPLICANT: Chrystelle LAGAHE, et al  
SERIAL NO.: Unassigned  
FILING DATE: Herewith  
TITLE: Method for Making a Detachable Semiconductor Substrate and For  
Obtaining a Semiconductor Element  
EXAMINER: UNASSIGNED  
ART UNIT: UNASSIGNED

---

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**PATENT PRACTITIONERS TO BE MADE OF RECORD**

Please recognize the following ten patent practitioners in the attached Declaration and Power of Attorney as being of record in the application or patent to which the power of attorney is directed:

**Robert E. Krebs, Reg. No. 25,885**

**Marc S. Hanish, Reg. No. 42,626**

**John P. Schaub, Reg. No. 42,125**

**Thierry K. Lo, Reg. No. 49,097**

**Masako Ando, (37 C.F.R. §10.9 (b))**

**Yukiko Maekawa, Reg. No. 50,307**

**Khaled Shami, Reg. No. 38,745**

**Adrienne Yeung, Reg. No. 44,000**


**William Winters, Reg. No. 42,232**

**Hal J. Bohner, Reg. No. 27,856**

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. 50-1698.

Respectfully submitted,  
THELEN REID & PRIEST LLP

Dated: Apr. 6, 2005

  
Robert E. Krebs, reg. no. 25,885

THELEN REID & PRIEST LLP  
P.O. Box 640640  
San Jose, CA 95164-0640  
Telephone: (408) 292-5800  
Fax: (408) 287-8040



Docket No.: 034299-629

**COPY**

**THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANT: Chrystelle LAGAHE, et al  
SERIAL NO.: Unassigned  
FILING DATE: Herewith  
TITLE: Method for Making a Detachable Semiconductor Substrate and For  
Obtaining a Semiconductor Element  
EXAMINER: UNASSIGNED  
ART UNIT: UNASSIGNED

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COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria VA 22313-1450

**PRELIMINARY AMENDMENT**

Dear Sir:

Prior to examination, please amend the above-identified application as follows:

**Amendments to the Specification** begin on page 2 of this paper.

**Remarks / Arguments** begin on page 3 of this paper.

**Amendments to the Specification:**

Please amend the specification by inserting the paragraph below, after the title on page 1.

**Cross-Reference to Related Application**

This application claims priority based on International Patent Application No. PCT/FR2003/05077, entitled "Method for Making a Detachable Semiconductor Substrate and For Obtaining a Semiconductor Element" by Chrystelle LAGAHE, Bernard ASPAR and Aurelie BEAUMONT, which claims priority of French Application No. 02/12443, filed on October 7, 2002 and French Application No. 03/50130, filed on April 25, 2003, which were not published in English.